

REMARKS

In view of the above amendments and the following remarks, reconsideration of the objections and rejections contained in the Office Action of September 24, 2003 is respectfully requested.

As an initial matter, the Examiner indicated that the two Japanese references listed on the PTO Form 1449 (under "Other Documents") submitted with the Information Disclosure Statement filed March 13, 2002 will not be considered because usable copies were not submitted. The Examiner's attention is directed to the copies of those two Japanese references that have been submitted herewith. In view of this submission, as well as the information regarding these references contained in the English language search report filed with the Information Disclosure Statement, the Examiner is respectfully requested to now consider these references.

In order to make necessary editorial corrections, the entire specification and abstract have been reviewed and revised. As the revisions are quite extensive, the amendments to the specification and abstract have been incorporated into the attached substitute specification and abstract. No new matter has been added by the revisions. Thus, entry of the substitute specification is respectfully requested.

The Examiner has objected to the drawings because the Examiner asserts that Figures 1 and 2 require a designation such as "Prior Art." In view of this objection, Figure 1 has now been amended to include the "Prior Art" designation, and a new formal Figure 1 including this modification has been submitted herewith. However, the Examiner is requested to note that Figure 2 is a graph illustrating the relationship between frequency and consumed current, and the relationship between frequency and a generated DC voltage, and these relationships are applicable to the present invention as well as the prior art. In other words, the graph of Figure 2 has been provided in order to illustrate general principles so as to provide a better understanding of the present invention, and the graph does not illustrate "only that which is old" or any prior art configurations. Therefore, it is submitted that Figure 2 does not require a designation such as "Prior Art." In view of the above remarks and the attached new Figure 1, it is submitted that the Examiner's objections to the drawings have been overcome.

The Examiner has rejected claims 1 and 3 as being anticipated by the Burtin '993 reference (USP 5,939,993); has rejected claims 1, 2, 6, and 10 as being unpatentable over the Applicant's Admitted Prior Art (AAPA) in view of the Burtin '770 reference (USP 5,703,770); and has rejected claims 3-13 as being unpatentable over the AAPA, the Burtin '770 reference, and further in view of the Burtin '993 reference. In this regard, the Examiner is requested to note that original claims 1-13 have now been cancelled and replaced with new claims 14-27. Although the new claims have been drafted in order to place the original claims in a proper form and in a proper sequence under current U.S. practice, it is submitted that the scope of the new claims corresponds to the scope of the original claims. Furthermore, the Examiner's prior art rejections of the original claims (as those rejections apply to the new claims) are traversed for the reasons discussed below.

New independent claim 14 is directed to an electrostatic painting device that comprises a current sensor for detecting a current value of an *intrinsic consumed current* at a high-voltage booster circuit, and a frequency control device for adjusting a frequency of the high-frequency low voltage so that the current value detected by the current sensor does not exceed a prescribed value. In this regard, the term "intrinsic consumed current" is defined on page 7, lines 24-27 of the original specification as the current on the *primary* side (i.e., the current flowing in the primary winding) of the transformer of the high voltage booster circuit.

The AAPA of Figure 1 does not disclose or suggest a current sensor for detecting a current value of an *intrinsic consumed current* at the high-voltage booster circuit, as recited in new independent claim 14. In addition, Figure 1 does not disclose or suggest a frequency control device for adjusting a frequency of the high-frequency low voltage so that the current value detected by the current sensor does not exceed a prescribed value, as recited in claim 14. It is noted that the Examiner has apparently acknowledged these omissions in the middle of page 4 of the Office Action.

The Burtin '770 reference is directed to a method and apparatus for generating a high voltage, while the Burtin '993 reference is directed to a device for electrostatic coating product spraying. Although the Examiner asserts that both of these references disclose a current sensor and a frequency control device as recited in new independent claim 14, it is submitted that neither of these references disclose or suggest either one of these features, as explained in more detail below.

The current I_{HT} described in the Burtin '993 reference flows through the high voltage electrode 9 shown in Figure 1. In other words, the current I_{HT} is the current that flows through the *secondary winding* of transformer 7. In this regard, column 4, lines 22-37 of the Burtin '993 reference teaches that the development of the current I_{HT} is measured over time by a unit formed by circuit 11, components 12, 13, 14, and calculator 20. However, as explained above, the current I_{HT} is the current in the *secondary winding*, rather than an intrinsic consumed current as in the present invention (as defined in the specification and explained above). Moreover, in contrast to the Examiner's assertion, the Burtin '993 reference does not disclose or suggest a current sensor for detecting a current value of an *intrinsic consumed current* at the high-voltage booster circuit. Thus, the Burtin '993 reference also does not disclose or even suggest a frequency control device for adjusting a frequency of the high-frequency low voltage so that the current value detected by the current sensor (i.e., the current value of the intrinsic consumed current) does not exceed a prescribed value.

The Burtin '770 reference teaches that the high voltage direct current I_{HT} is measured at a point upstream of voltage multiplier 7. In particular, the Burtin '770 reference explains that the current component I_{HT} flowing through the measuring line shown in the Figure is conducted to an input of calculator 10 so that the calculator can determine the value of the current, and the measuring line is connected to the rectifier 5 at a point just upstream of the voltage multiplier 7. Thus, as explained in column 3, line 58 through column 4, line 5 and illustrated in the Figure of the Burtin '770 reference, the current I_{HT} in Burtin '770 is a current flowing through the *secondary winding* of the transformer 6. Moreover, in contrast to the Examiner's assertion, the Burtin '770 reference does not disclose or suggest a current sensor for detecting a current value of an *intrinsic consumed current* at a high-voltage booster circuit, as recited in independent claim 14. Thus, the Burtin '770 also does not disclose or suggest a frequency controlled device for adjusting a frequency of the high-frequency low voltage so that the current value detected by the current sensor (i.e., the current value of the intrinsic consumed current) does not exceed a prescribed value.

As explained above, both the Burtin '993 reference and the Burtin '770 reference teach devices in which a current flowing through a *secondary winding* is measured during operation.

However, neither of these references disclose or even suggest a current sensor for detecting a current value of *an intrinsic consumed current* at the high-voltage booster circuit, as recited in independent claim 14. Therefore, one of ordinary skill in the art would not be motivated to modify or combine these references with the AAPA in order to obtain the invention recited in new independent claim 14. Accordingly, it is respectfully submitted that new independent claim 14 and the claims that depend therefrom are clearly patentable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. However, if the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact the Applicant's undersigned representative.

Respectfully submitted,

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